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TYPE I REPORT (May 1, 1973)

Title: Structural and Lithologic Study of Northern Coast Ranges
        and Sacramento Valley, California

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Proposal No.:   SR 042

GSFC Identification No.:   UN 217

P.I. Ernest I. Rich, Stanford University   GSFC No. UN 217

Accomplishments:

Work has continued on detailed analysis of geologic features in the Modoc-Klamath Mountain area of northern California. From the imagery of this area, for the period September 25 to October 27, 1973, it is possible to define a few lithologic units. These images were taken during the regional climatic change, from dry to wet season, and clearly reflect the variation of vegetation changes in the microclimatic regimes. The ability to differentiate lithology on the windward side of the Coast Ranges is extremely poor, whereas on the leeward side (within a partial rainshadow) lithologic differences are more clearly defined. It is possible, for example, to delineate individual volcanic flows within the Shasta-Lassen Mt. region and the Modoc Plateau. Sedimentary rock sequences are clearly defined, partly on the basis of photo gray-tones and partly on geomorphic characteristics. Work will continue along this line, but full evaluation will not be possible until imagery taken during the seasonal change (from winter wet season to the summer dry season) have been received.

Significant Results:

No significant results can be reported at this time inasmuch as the above reported accomplishments must be verified by subsequent imagery or underflights and field checking. This should be accomplished before the next reporting period.

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